

Claim Status

[0003] Claims 1-21 remain pending in the application.

Claim Rejections - 35 U.S.C. § 112 Lack of Support

[0004] The examiner has quoted a part of the amendments made to the claims and stated
5 there is lack of support in the specification. Applicant respectfully traverses. The full text of the amendment made to the claims is as shown below:

“power supply socket wherein power to said power supply socket is able to be turned on or
off directly in response to a state of said control signal received at said first socket
without decoding digital data received in said control signal.”

10 [0005] As the Examiner is surely aware, each word of the claim is to be given effect when considering patentability of the claim. The present amendments were made to even more clearly distinguish the invention as described in the application from art repeatedly asserted by the Examiner. As repeatedly discussed by the Applicant, much of this art concerns power supplies where some type of encoded digital data is received and that data is decoded to produce one or more
15 values or signals that are then used to perform an action. The Examiner’s argument is equivalent to a holding that a light switch digitally decodes data and therefore is anticipated by a microprocessor. Applicant’s claimed invention, as illustrated in Fig. 2 and described in the drawings involves a control relay device that acts as an on/off switch directly in response to the state of one signal applied, in this example to input 3 of the control relay and carried over a communication
20 channel on an otherwise unused signal line (corresponding in this example, to pin 7 of an RJ45 connector).

[0006] Applicant believes that those of skill in the art would clearly understand this method of operation as different and not anticipated by devices that use some type of microprocessor or rely on some type of decoding of a communication signal (such as carrier detect) prior to taking some
25 action. Applicant asks the Examiner to consider the full amended claim language in light of the specification and art. Applicant traverses the Examiner’s assertion that a text label in Applicant’s drawing indicating the on/off effect on the control relay by the signal indicates that the specification does not support what it in fact clearly teaches and illustrates, namely, a “power supply socket wherein power to said power supply socket is able to be turned on or off directly in response to a

state of said control signal received at said first socket without decoding digital data received in said control signal.”

Double Patenting

5 [0007] A terminal disclaimer will be filed in the later filed case to overcome any outstanding double patenting rejections prior to issuance of the later-filed case.

Art Rejection

[0008] Claims 1-21 stand rejected under 35 USC 103a as unpatentable over CHENG ‘174 in combination with PULIZZI and/or EMM 96 and/or Chang. Applicant respectfully traverses.

The Invention

10 [0009] The present invention is directed to a power supply and related methods that are particularly suited to modern networking applications. A device according to the invention is designed for easy installation for controlling and power cycling network devices such as routers. Applicant does not attempt to claim all remotely activated power devices, but instead the particular combinations provided in the claims that make the invention a solution in providing remote power
15 cycling for networking devices, in particular because the invention provides control of a power cycling device through a standard network cable, including a cable carrying data signals.

Response to Rejection

[0010] The claims, as amended, are not anticipated or rendered obvious by controllable power supplies (such as discussed in the EMM reference) that teach a separate control cable is
20 needed to control the power supply. The claims, as amended, also are not anticipated or rendered obvious by power supplies (such as discussed in Cheng) that teach that a separate control wire connection, with a separate socket, is needed to control the power supply. The claims, as amended, also are not rendered obvious by power supplies (such as shown in Pulizzi) that teach that data commands must enter the power supply and be processed by a microcontroller in order to control
25 the operation of power outlets. The claims, as amended, also are not rendered obvious by devices (such as Change) that teach that a presence detection signal may be provided on a wire of a data cable and that power may be supplied from the device that also supplies the presence detection signal.

[0011] In fact, these references, teach away from the present invention in that the references each discuss a different solution to the problem of remotely affecting a power supply.

Lord U.S. 5198806

[0012] The patent discuss a remote controller for a personal computer wherein an external
5 modem 40, which is “supplied with operating power continuously,” is enabled to receive, over a telephone line, a control signal and is then able to indicate to a controller 10 to power up a computer, after the modem has authorized an incoming user. A serial signal 60 passes from the modem through the controller 10 and to the personal computer over line 70. Control software is used to make the invention operate. Lord discusses “application of the operative power to the local computer
10 system **on receipt and recognition of a secure coded signal** from the data communication interface of the remote computer system.” (Abstract, emphasis added.)

[0013] Col. 6, line 53 - col. 7 line 35 described operation of one part of the Lord device, with reference to both Figs. 1 and 3. Fig. 1 shows software 20 and other components, such as modem 40 that are required to make Lord operate as described to provide “secure access” as discussed through
15 Lord. The part discussed and asserted on by the examiner does not receive a signal over a communication network as described in the claims and use that signal to turn on and off a power supply. Instead, that part is connected directly to a modem that decodes a complex signal stream received over a telephone line and using a decoded result of that signal stream (a carrier detect) to operate as further discussed in Lord. The Examiner is relying on a modification to Lord that (using
20 a signal received directly over a communication channel) that would make Lord unsuitable for its purpose of providing secure access. Lord simply DOES NOT teach “direct operative connection between a signal line of network sockets and the relays without processing the signals.” What Lord seems to suggest is a connection between a signal decoding function of a continuously powered modem (e.g., carrier detect) and operation of a locally connected computer.

25 **Chang U.S. 5991885**

[0014] The patent discusses a *network* that detects the presence of a remote terminal and if the terminal is determined to be an infrared hub, the network device can provide power thereto. The patent indicates that a presence request signal is used in some configurations. (Col. 8: line 23-30.) The patent also indicated that this detection signal does not connect to used lines. (Col. 10: line 5-

8.) Chang **does not** discuss sending a signal to a housing on an unused wire to turn power on or off and does not discuss a power supply per se, instead Chang discusses detecting the presence of a second device from a first device and supplying power to the second device from the first device. (See col. 3: line 19-37.)

5 [0015] Thus, there is no discussion or illustration in Chang of the limitations “a first network socket ...able to receive a control signal transmitted over a wire of a network cable.” Chang instead discusses that a detecting signal is sent over a network cable.

[0016] Further, Chang does not teach or suggest the claim 1 limitations “control circuitry within said housing operatively connected with said first socket, and said power supply socket
10 wherein power to said power supply socket is able to be turned on or off in response to said control signal received at said first socket.” Instead, Chang teaches that any turning on or off of the power supply is done by the FIRST DEVICE, I.E. THE DEVICE THAT SENT THE DETECTION SIGNAL.

Cheng U.S. 5644174

15 [0017] The patent discusses a power sequencer, with further provisions for daisy chaining. CONTROL IN is described as a separately generated control signal that can also be used for daisy chaining. There is no illustration or discussion whatsoever anywhere in the reference of a network provided signal or standard network port being used for controlling operation. The CONTROL
20 IN signal is not carried over a network cable that also carries data. The connection of the CONTROL IN signal is not a standard network connection. Further, the present invention does not discuss or teach daisy chaining, but instead teaches that each device is controlled separately and that any pass through socket is for passing through data signals, not passing through a control daisy-chain signal.

[0018] There is no discussion or illustration whatsoever in Cheng of the limitations “a first network socket located on a first of said distinguishable surfaces; wherein said first socket is able
25 to receive a standard network cable connector and able to receive a control signal transmitted over a wire of a network cable;” provided in claim 1 or the limitation “wherein a network signal cable can be used to carry a control signal without generating unacceptable interference on said network cable;” of claim 13 or the limitations “a first network socket located on a first surface, said first socket connectable to a standard network cable; a second network socket located on said first

surface, said second socket connectable to a standard network cable; a power supply socket located on a second surface; and control circuitry within said housing operatively connected with said first socket and said power supply socket wherein power to said power supply socket may be turned on or off in response to a control signal received over one wire of a standard network cable at said first socket while not interfering with network communication signals on different wires flowing between said first socket and said second socket.” of claim 14. While Cheng does appear to discuss a control input socket 204, nothing in Cheng suggests that such a socket is a standard network socket or is capable of carrying standard network data signals that are not interfered with by the control signals carried on the same cable. Thus each of the independent claims contain limitations not taught or discussed by Cheng.

EMM 96

[0019] Furthermore, none of the previously cited limitations are shown in any of the devices outlined in the EEM 1996 Pulizzi Engineering Inc. manual relied by the Examiner. While this manual does seem to discuss rack mounted power supplies, the manual does not teach any of the above limitations. **Therefore, Cheng and the EEM 96 catalog together do not even show all of the limitations of Applicant’s claimed invention. Applicant therefore respectfully requests that the Examiner’s rejection of all claims based on this combination be withdrawn.**

[0020] Because the catalog relied on by the Examiner did not specify in detail operation of the devices mentioned, Applicant has located additional information about these power supplies referenced by their model number and has submitted this additional information with the attached IDS. This additional information demonstrated that none of the cited power supplies use a standard network signal or network connection to control ON/OFF operation. These supplies, instead, require a separate signal to be run to the supplies from a computing device, especially for the purpose of remote operation. In some designs, this control signal, can be passed through the power supply to another power supply only to provide for a number of power supplies to be controlled by the same control signal in a daisy-chain or parallel fashion.

[0021] The present invention, in contrast, does not requires a separate control signal or cable to be run to the power supply control mechanism. Instead, the invention allows a standard network

cable, using standard network connections and commands to be plugged into the power supply in order to control remote operation.

Pulizzi U.S. 5923103

[0022] In earlier responses, Applicant presented arguments traversing the combinations cited by the Examiner and did not admit that any rejections made by the Examiner were proper. The patent appears to be related to the Pulizzi Engineering products that the Examiner also cited and that have been addressed by the Applicant. The patent discusses a switched-output controller apparatus with repeater function that includes a microcontroller 18 that can communicate with remote control signals through various sockets e.g. 142, 144, 160, 162.

[0023] As shown in the figure and discussed in the patent, all eight relays 60-74 are controlled by signals from the microcontroller 18 through a relay driver 24. The patent suggests that there is a command protocol for instructing microcontroller 18 in how to schedule switch operation of the outlets 40-54 through the relays. As shown in the figure and discussed in the patent, there is no direct operative connection between a signal line in any of sockets 142, 144, 160, 162 and the relays.

[0024] The patent discusses at length that communication to the relays is through an RJ232 connection that allows microcontroller 18 to receive signals FROM A MODEM. (See Col. 2: Lines 46-50 and Col. 8: Lines 34-58.)

[0025] The patent also discusses at length that if it is desired to control devices located at different locations, an RS485 or RS482 type network connection is made using a different set of RS11 connectors. RS422 and RS485 interfacing is known in the art as using a twisted-pair wire (i.e. 2 wires) for each signal (for example see www.kksystems.com/serdesc1.html). The main difference between RS422 and RS485 is as follows: RS422 has no tri-state capability (its driver is always enabled) and it is therefore usable only in point-to-point communications (although an RS422 device can act as a Master on a 4-wire RS485 system). RS485 has tri-state capability and can therefore be used in multidrop systems. RS422 is full-duplex, i.e. data can flow in both directions simultaneously - and often does. RS422 uses two separate twisted pairs. RS422 is often used simply for extending RS-232 cables. RS485 is half-duplex. It exists in two varieties: 2-wire (which uses a single twisted pair) and 4-wire (which uses two twisted pairs like RS422). RS485 systems are usually

"Master/Slave"; each Slave device has a unique address and it responds only to a correctly addressed message (a "poll") from the Master. A Slave never initiates a dialogue. In a 2-wire system, all devices (including the Master) must have tri-state capability. In fact, it appears that a major advance claimed by Pulizzi is the need for, and presence of, TWO ENTIRELY DIFFERENT AND
5 SEPARATE NETWORK CONNECTIONS for the device to operate (See Abstract, 2d to last sentence and elsewhere throughout.) In particular, Pulizzi discusses that prior systems had just RS232 networks, which were limited to 200 foot operation (Col. 2: line 45 to Col. 3, line 63) and a major advance taught in the patent is use of two separate "in parallel" networks.

[0026] Thus, there is no discussion or illustration in Pulizzi of the limitations **"a first
10 network socket located on a first of said distinguishable surfaces; wherein said first socket is able to receive a standard network cable connector and able to receive a control signal transmitted over a wire of a network cable; said network cable also carrying network communication signals over separate data wires;"** provided in claim 1. Pulizzi instead teaches away from the invention in that Pulizzi discusses that to control an outlet, communication must first
15 be made to a microcontroller 18 through a modem connection vi RJ11 connectors. This does not teach or suggest a standard network connection that also carries data. Further Pulizzi discusses that communication with additional controlled outlets must be accomplished through an entirely separate master/slave device type communication through an RS232 or RS485 or RS422 type connection, with a further limitation that the devices cannot be more that 4,000 feet apart.

[0027] Further, Pulizzi does not teach or suggest the limitations **"wherein a network signal
20 cable can be used to carry a control signal without generating unacceptable interference on said network cable comprising: placing a network socket on one surface of said housing, said network socket able to receive signals from a plurality of separate wires in a multiple wire network cable;"** of claim 13. As discussed above, Pulizzi teaches away in that it describes using
25 a modem connection for connecting to the outside world and using a separate, master/slave device-type RS232 etc. type connection that does not otherwise carry any network data. Likewise, Pulizzi does not teach or suggest the limitations **"a first network socket located on a first surface, said first socket connectable to a standard network cable; a second network socket located on said first surface, said second socket connectable to a standard network cable; a power supply**

socket located on a second surface; and control circuitry within said housing operatively connected with said first socket and said power supply socket wherein power to said power supply socket may be turned on or off in response to a control signal received over one wire of a standard network cable at said first socket while not interfering with network communication signals on different wires flowing between said first socket and said second socket.” of claim 14. Thus each of the independent claims contain limitations not taught or discussed by Pulizzi.

[0028] Furthermore, as discussed above, none of the previously cited limitations are shown in any of the references cited by the Examiner.

Response to Obviousness Rejection under 35 U.S.C. §103(a)

[0029] Claims 1-21 were rejected under 35 U.S.C. §103(a) as allegedly obvious in light of the cited references.

[0030] For ease of reference, the Applicant repeats here his response to the obviousness rejection. However, in summary, Applicant respectfully and strongly objects to the examiner’s assertion that “the examiner has provided such motivations such as allowing use in standard rack mount network systems and allow remove power control without additional physical attachment, simple and transparent power control as stated in the prior art rejections.” (Page 7-8 of Office Action.)

[0031] The Examiner has simply repeated the advantages of the claimed invention. He has further used those advantages to select from several pieces of prior art, none of which operate to provide those advantages, and then asserted that those pieces could me fit together to make Applicants invention. This the Examiner cannot do. The Examiner is respectfully reminded that he has the burden of showing a suggestion or motivation for making the necessary combination IN THE PRIOR ART. Claiming the advantages first demonstrated by the Applicant’s invention as the motivation for combining items extracted from a handful of other references is both unfair to Applicant and not allowed by relevant case law or patent office practice as discussed below. Therefore, the obviousness rejections of Claims 1-21 should be withdrawn.

[0032] The Examiner is again reminded that an obviousness rejection requires citation of a teaching or suggestion IN THE PRIOR ART to modify the references in the manner indicated by the Examiner. As stated by the Court of Appeals for the Federal Circuit:

Our case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. **“Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.”** Id. [emphasis added] *Ecolochem, Inc. v Southern-California Edison Company*, __ USPQ2d __ (Fed. Cir. 2000)

See also:

The mere fact that the prior art may be modified in the manner suggested by the Examiner **does not** make the modification obvious **unless the prior art suggested the desirability of the modification.** [emphasis added] *In re Fritch*, 23 USPQ 2d 1780, 1783-1784 (Fed. Cir. 1992)

[0033] In making the *prima facie* rejection under §103(a), the Examiner has failed to establish, with particularity, why it was apparent to construct and/or operate a remotely controllable power supply as recited in the presently pending claims particularly when all of the references cited by the examiner suggest entirely different methods for affecting or controlling power to a device some distance from the supply. Simply alleging that because some ways were known for remotely affecting or detecting or controlling power to a networked device is not making specific findings why it was apparent to remotely control power to a device as recited in the pending claims.

[0034] As stated by the Federal Circuit:

A critical step in analyzing the patentability of claims pursuant to section 103(a) **is casting the mind back to the time of invention**, to consider the thinking of one of ordinary skill in the art, **guided only by the prior art references and the then-accepted wisdom in the field.** See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. **Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight**

syndrome wherein that which only the invention taught is used against its teacher." Id. (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.* 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)). [emphasis added] (*In Re Werner Kotzab*, 217 F.3d 1365, 55 USPQ2d 1313, ____ (Fed. Cir. 2000))

5 [0035] In the instant case, lacking the teaching provided in the specification, there is nothing to lead one of ordinary skill to construct a power supply using the method of remote control as recited in the claims. The only "evidence" presented by the Examiner for such a motivation is the Examiner's assertion that "In this case, the examiner has provided motivations such as allowing use
10 in standard rack mount network systems and allow remote power control without additional physical attachment as stated in the prior art rejections." However, the Examiner is here doing EXACTLY WHAT IS FORBIDDEN HIM BY THE FEDERAL CIRCUIT. The only motivation the Examiner provides for modifying and recombining the FOUR CITED references is to ACHIEVE THE EXACT ADVANTAGES DESCRIBED IN THE PRESENT APPLICATION AND ONLY
15 PROVIDED BY APPLICANTS INVENTION. The Examiner has provided NO EVIDENCE that either the PRIOR ART or the knowledge generally available to one of ordinary skill in the art at the time of the invention suggests the modification. The Examiner is instead using the advantages provided and suggested SOLELY BY THE INVENTION ITSELF to reject Applicants claims. This the Examiner is instructed, by both the court, and the MPEP, not to
20 do. The Examiner is, in effect, taking the present inventors' own disclosure "as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight". The Examiner has cited nothing in the art or general knowledge art that would lead one of skill to produce the presently claimed devices and methods. Lacking such motivation, the Examiner has failed to make a *prima facie* case of obviousness and accordingly, the rejection of claims 1-21 under 35 U.S.C. §103(a)
25 should be withdrawn.

Correction to Previous Amendment

[0036] Paragraph [0029] and headings A and B immediately before and after it were included in the amendment due to typographical error and are cancelled.

[0037] Applicant has therefore addressed the Examiner's earlier rejections under 35 U.S.C. §103. In view of the foregoing, Applicant believes all claims now pending in this application are

in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

[0038] If a telephone conference would expedite prosecution of this application, the Examiner is invited to contact the undersigned by telephone at (510) 769-3508 or email at sjl@quinelaw.com.

Dated: July 8, 2002

Quine Intellectual Property Law Group (P.C.)

P.O. BOX 458, Alameda, CA 94501

Tel: 510 337-7871 Fax: 510 337-7877

PTO Customer Number 22798



22798

PATENT TRADEMARK OFFICE

Respectfully submitted,

Stephen J. LeBlanc

Reg. No: 36,579